ENGINEERING WEEK

MESSAGE FROM THE DEAN

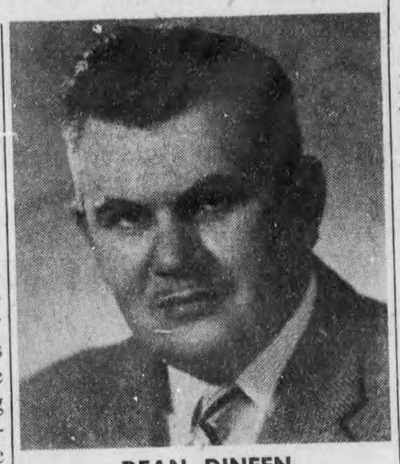
This issue of the *Brunswickan* is the result of a special effort by interested students in Enginering to assist the regular staff of the student paper. They, and other similar groups who assume this responsibility, are to be congratulated for their efforts and the useful experience they obtain in this way.

In producing the *Engineering Brunswickan* and in the special campus activities arranged during "Engineering Week" our students wish to draw attention to their faculty as part of the University and to provide an opportunity for others to observe and learn something of the work done by engineering students and the facilities which are available to them. To this end, Open House was held again this year. It is hoped that many students from other faculties as well as the public enjoyed this event.

In this, our one hundred and ninth year since the beginning of engineering instruction at U.N.B., we will be graduating our first classes in Chemical and Surveying Engineering. Our enrollment seems to have settled down to about 700 students, of whom about 50 are registered in The School of Graduate Studies. With the limitation of enrollment in the years immediately ahead it appears that we can expect to continue at about this level. In one sense we welcome this development until some expansion of the Engineering Building can be completed.

Since industry's requirement of graduates continues at a high level and because of the larger number of young men who will be seeking a university education in the next few years it is expected that competition for registration will result in raising the standards of admission and promotion. This should have the effect of increasing the quality and quantity of the preparation which we shall be able to offer for the engineers of the future.

Whether students realize it or not, providing the environment and facilities, both physical and human, for an effective university-level education is a highly competitive business. This seems to be particularly true in those fields where the ever accelerating progress of science and technology is continually broadening the horizon of the intellectual sphere in which the graduate must undertake his professional career. The central problem of engineering education is to provide the background of intellectual training and experience which will ensure that the graduate can continue his development as a professional engineer and successfully assume the responsibilities with which he will be faced in a much more complex world ten, twenty or thirty years after graduation. In an effort to achieve this goal, engineering education is attempting to give much more attention to quantitative answers to 'how?'



DEAN DINEEN

and to examine more carefully the answers to 'why?'. There can be no doubt that the intellectual demands upon the engineering student of today are much greater than those of even a decade ago.

In conclusion I take this opportunity to thank all those students who may contribute in any way to the success of this "Engineering Week" program and to assure all our students that the staff joins with me in appreciation of the cooperation which we enjoy in our efforts to improve our product — the U.N.B. engineer.

THE INSTITUTE

by Norm Crutchfield

The question "What makes the Engineering Institute of Canada tick?" can be fully answered in one word—MEMBERS, interested and active members.

There are many reasons why members believe that they should be identified with the E.C.I. and the objectives of the society, but each individual member should have his own reasons.

The Institute is composed of voluntary members interested in the growth of their profession and the development of Canada, and is directed by elected members of Council. It is unique in its structure and sphere of interest and influence. The Activities of the Institute are carried out by the members who give their time and talents voluntarily. An example of this was seen at the Annual Meeting held in Vancouver last May, where, of all the people attending this Convention, only eight were paid E.I.C. staff members.

The membership is organized into many branches across Canada, with a central headquarters in Montreal. Affiliated with these branches are the nineteen student sections comprising over 6000 student members in the universities and colleges across Canada. There are many advantages to joining the E.I.C. while still a student. Members receive the monthly *Engineering Journal* in which information for various reports, etc. may be found. They also have the free use of one of the best technical libraries in Canada, located in Montreal, and of Canada's best engineering employment services. An Institute fund exists for making loans to students, to complete their studies. For the undergrads interested in summer work in Europe, they may participate in "The International Association for the Exchange of Students for Technical Experience." Representation at the student conference held each year in conjunction with the E.I.C Annual Meeting is provided at Institute expense. The technical meetings such as at these conventions, are second to none in the world.

The slide rule tie clip, one of the E.I.C. insignia, which is given each new member, is a mark of prestige and status that goes with being a member in one of the front ranking engineering societies of the world.

Ed.'s note:— A membership drive for the E.I.C. will be held on Thursday, Jan. 25 in the lobby of the Civil. Eng. Bldg.

Note from President

As science and technology mature the role of the engineer in industry becomes more important. The conquest of outer space is the ultimate goal and we as engineers should be directly concerned. However, before that, there is the primary object of becoming engineers. This year we have had the opportunity of displaying some of the work involved in gaining the required knowledge and skill.

I would like to take this opportunity to thank all those who have worked hard to make this Engineering Week possible. A special word of praise must go to the Engineering faculty and the chairman of the Fredericton Branch E. I. C. for their assistance. Good luck to all.

Rae Brown

MODERN THERMAL STATION

Mr. C. W. Hodgson, associate and travelling companion of Dr. K. F. Tupper, will present his technical paper entitled "Modern Thermal Station Design and Related Operating Problems" to the Fredericton Branch of the E. I. C. and the engineering student body at 4:15 p. m. this afternoon in Room 106 of Carleton Hall.

Mr. Hodgson graduated in Mechanical Engineering from Rutherford Technical College, Newcastle, England in 1937. He is a Professional Engineer in Ontario, a member of the Engineering Institute of Canada, and an Associate Member of the Institution of Mechanical Engineers.

C. W. HODGSON

After early experience in marine engineering, he joined Merz and McLellan of Newcastle, and worked on the design, layout and construction of major steam power stations to an aggregate installed capacity of 530,000 KW.

Among the stations worked were Littlebrook "A" and "B" Power Stations of 24,000 KW capacity. Littlebrook "B" was a reheat station of advanced design. Other stations included Orlands and Pretoria "B" Power Stations, South Africa, each of 12,000 KW capacity and an extension of 50,000 KW capacity to Dunstan "B" Power Station also a reheat unit.

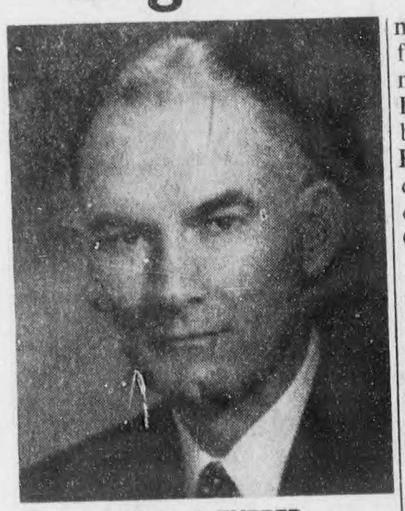
After Naval War Service, Mr. Hodgson continued in this work with Merz and McLellan until 1948 when he joined the Central Electricity Board, England, as Senior Construction Engineer of the East Midlands Division. In this capacity he was in charge of Mechanical Design Section of Construction Department and also to select sites for future power stations.

In 1952 he became a Generation Engineer in charge of the construction of a group of power stations. The major stations worked on were the first section of Castle Donington which included 4-100,000 KW sets of advanced steam pressure and temperature, Lincoln Power Stations 80,000 KW capacity, Northampton Power Station 60,000 KW capacity. Later in this period he was in charge of the design of Wellington "B" Power Station of 400,000 KW capacity which was a reheat station consisting of 2-200,000 KW sets.

In 1956 Mr. Hodgson came to Canada to join the engineering consulting firm of "Ewbank, Tupper & Assoc. Ltd., Toronto, as a Principal and head of the Mechanical and Thermal Division.

J. L. A. Salois

Engineer to Speak on Russia



DR. K. F. TUPPER

The Engineering Society, in close cooperation with the Fredericton Branch of the E.I.C. and the Faculty was very fortunate indeed to obtain the services of Dr. K. F. Tupper as the main Engineering Week speaker. Dr. Tupper will present his talk in Room 106 of Carleton Hall this evening at 8:15 p.m.

Dr. Tupper's presentation, based on personal observations during his tour of Russia, will be accentuated with slides and is appropriately entitled "An Engineer's peek at Russia".

Dr. Tupper has had a long, colourful and rewarding Engineering career as shown by the following memberships and honours gathered; member of the American Society of Mechanical Engineers, member of the association of Professional Engineers of Ontario, member of the Association of Professional Engineers of Alberta, Associate Fellow of the Royal Aeronautical Society, Honorary member and Past President of the Engineering Institute of Canada, awarded the O.B.E. in 1947 for wartime work, awarded an honourary degree of Doctor of Science from Laval University in 1958, awarded an honourary degree of Doctor of Science from the University of Western Ontario in 1959 and honourary degree of Doctor of Law from McMaster University in 1961.

He was born on July 21, 1905 at Lynn, Massachusetts, and spent his early years in Saskatoon, Saskatchewan and Calgary, Alberta. In 1929, he graduated from the University of Toronto with a B. Sc. in Mechanical Engineering and took advanced study at the University of Michigan in 1937 and 1938, receiving his S.M. in 1938.

He became a member of the staff of the National Research Council in 1929 in the Division of Physics and Mechanical Engineering. Until 1944, he was engaged in a wide variety of work principally in the realm of fluid mechanics and established the first hydraulic structures laboratory.

From 1944 to 1946 he was employed as Chief Engineer for Turbo Research Limited, a crown company engaged in the design and development of gas turbine engines, in charge of a total staff of 120, including 25 professional engineers. In 1946 this project was taken over by a private company and he became Director, Engineering Division, Atomic Energy Project, Chalk River, Ontario, with a total staff of 650 responsible for the operation of nuclear rectors, chemical separation of plants and isotope production.

Between the years 1949-54, he was Dean, Faculty of Applied Science and Engineering, for the largest engineering school in Canada, with a student body of about 2,500 and a teaching staff of 60 professors and 100 instructors and assistants, The University of Toronto.

Dr. Tupper was also in charge of the University's Computation Centre which was engaged in work in the field of digital electronic computers, also of the Institute of Aerophysics which conducts research in supersonic flow and flow at very low pressures.

From 1954 to date, Dr. Tupper has been President of "Ewbank, Tupper & Ass.", Toronto, a firm of consulting engineers. This firm has undertaken a wide variety of projects in civil, mechanical and electrical engineering. It has special experience in the generation and distribution of electricity.

by J. L. A. Salois

NOTICE THESPIANS

Final readings for the spring production "Cave Dwellers" will be held in the Drama Workshop, Memorial Hall at 8:00 p. m., Thursday, January 25.

CROSS CURRENTS — Continued from page 3

I doubt it, unless a sheltered co-ed can refrain from sending home postcards, complaining about the natives using her nailfile to scrape the moss off their teeth.